

## **Division of Information Technology Services Technical Bulletin**

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### **Workload Reconfiguration**

In an effort to distribute the workload of the mainframe systems more evenly, some applications will be moved to a different logical MVS system on March 1, 1992. A reconfiguration of the JES2 environment will also take place at that time, which will allow the center to provide a development system that can be used for both application and systems testing. Basically CPU2 and CPU3 will be considered production systems, while CPU4 will be considered a development system. See page #3 for a description of where applications will reside.

New VTAM switch characters will also be available for the desired TSO. TSO2, TSO3, TSO4 should be discouraged from being used in the future. Please review page #3 for a list of the available TSO switch characters.

The main impact of the above change will be the control of queuing/printing output. This control is accomplished with DESTID's and is explained in the following text.

Basically the new configuration will cause CPU4 to have its own SPOOL volume. Please review page #6. Any system or a group of systems that share a single spool volume is known in JES2 terms as a NODE. We currently have a JES2 environment with two NODES. The node names are DASDP0 and DASDP1. The systems test machine (CPU0) is known by JES2 as NODE DASDP0. The other three systems (CPU2, CPU3, and CPU4) are known by JES2 as NODE DASDP1. CPU4 will be known as NODE DASDV in the new configuration.

Two or more NODES can be connected together through SNA lines to share workloads. This networking within JES2 is known as Network Job Entry (NJE). Jobs to be executed and/or printed can be routed within the network either explicitly or implicitly. Jobs are assigned explicitly by using the /\*ROUTE statement in the job stream. More information about this statement can be found in IBM JCL Reference GC28-1654. We currently have JES2 exits in place that explicitly assign execution NODE if a data base job class is used. If a batch job uses a data base class now, that job will be routed and executed on the correct system, so a /\*ROUTE statement will not be required when the new environment is implemented.

See Technical Bulletin #118 for a list of data base job classes. Implicit assignment is done if a job doesn't use a data base class, or does not have a /\*ROUTE statement. JES2 makes the

implicit assignment based on which NODE a job originates on. In other words the job is executed on the system that it is submitted from. All remotes (RJE's) will still be connected to CPU2, so any job submitted from an RJE without specifying an execution NODE will be executed on DASDP1. If, however, a TSO user logged on to the new development machine (CPU4), submits a job and the job has not been explicitly defined to execute on a specific NODE, then the job will execute on the development machine (DASDV).

JES2 allows any NODE in the network to have the same remote number defined in each of their respective systems. By referencing all printers in the NJE network with a symbolic name rather than a remote number, the routing of print can be accomplished quite easily. See page #4 for a list of symbolic names (DESTID's) that will be used for all remotes. Our recommendation is to add a /\*ROUTE PRINT statement to all JOBS that are to be printed. The name used on that statement needs to be one of the DESTID's found on page #4. Do not use a remote number for the name on this statement. All local printers will be attached to NODE DASDP1. If printing is desired to be local, then the name must be DASDP1, rather than LOCAL or RMT0.

Example JCL and effects can be found on page \$5.

Workload Reconfiguration					
		Target CPU			
Workload ID		CPU2	CPU3	CPU4	
ADABASAT	2			X	*
ADABASCJ	2	X			
ADABASD1	2			X	*
ADABASD2	2			X	*
ADABASTR	2			X	*
ADABASGG	2	X			
ADABASHS	3		X		
ADABASEP	4	X			*
ADABASED	4			X	
CICSAT	2			X	*
CICSCJ	2	X			
CICSGG	2	X			
CICST	2			X	*

CICSTD	2	X			
CICSTR	2			X	*
CICSPA	3		X		
CICSOV	3		X		
CICSHS	3		X		
CICSED	4			X	
CICSFIS	4	X			*
COMPLET1	2	X			
COMPLET2	2				DELETED
COMPLET3	3		X		
COMPLET4				X	NEW
DBD2	2			X	*
DBNTWRK	2			X	*
INSIGHT	2			X	*
QMF	2			X	*
* Indicates Change					

TSO Switch Characters	
Signon	Type of TSo
TSO	Best performance—(CPU Independent)
TSOCJ	Criminal Justice TSO
TSOGG	General Government TSO
TSODV	Development TSO
TSOHS	Human Services TSO
TSOEP	Education Production TSO

<p align="center"><b>Destination ID's and Remote Cross Reference Effective Date September 27, 1992</b></p>
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<b>RMT #</b>	<b>DESTID</b>	<b>R MT #</b>	<b>DESTID</b>	<b>R MT #</b>	<b>DESTID</b>	<b>R MT #</b>	<b>DESTID</b>
1		3	AGR03	4	FIR04	5	SRR05
9	LGR09	10	HLR10	11	TXR11	12	LQR12
13	TXR13	14	SSR14	15	HLR15	16	WER16
17	PSR17	18	CRR18	20	CRR20	22	TRIAD1
							NRR22
23	SRR23	27	NGR27	28	SRR28	29	WER29
30	PROVOR30	31	AGR31	34		35	SRR35
36	SRR36	37	DLR37	38	NRR38	41	CRR41
43	LSR43	46	FIR46	50		52	
54		55	DDP	56	HLR56	58	ITS1
			ITSB69				
59		60	DPR60	61		68	SAR68
69	DDPX25	70	SRR70	71		72	FIR72
73	OGENDNR73	74	ITS6	75		76	AGR76
77		78		79		80	CRR80
81	CAR81	82		89		91	
95		100	MONTIHS	101	OGDENDO	103	BOXE
104	CACHE	105	CARBON	108	UINTAHB	109	IRON
110	EMERYHI	111	JORDAN	112	LOGAN	113	MILLARD
	JTOWER						
114	SPANISHI	115	OGDEN	116	BEPRINT	117	SEVR
					CENTRAL		
					SBOE		
					USOE116		
118	SEVVT	119	KANEDO	120	HILR120	121	NCACHEM

122	TOOL	123	BOXH	124	WASH	125	BEARJR
126	PAYSONH	127	SFHIGH	128	SPRINGHI	129	SKYVIEW
			KEYDATA				
130	RIVERJR	131		132	SANRAFL	133	MURRAY
134	OWVOC	135	WASATCH	136	SCACHEM	137	SANPETEH
138	WAYNE	139	TOOLHS	140	TOWRJ2R0	141	TOWEJ3R0
142	TOWEJ3R0	143	TOWRJ3R1	144	DIXIEHS	145	PINEMS
146	TOWRB4R0	147	LOGANM	148	TOWRH4R0	149	GRANDHI
150	GRANDMID	151	DWLJORD	152	DWLBRIG	153	DUCHEN
154	DWLBEAR	155	DWLMTCR	156	DWLBOXM	157	DWLBRIT
158	DWLBVOC	159	JORDANWH	160	JORDAN2	161	BINGH
162	JORDAN3	163	JORDANW2	164	ALTAH	165	JORDAN4
166	PINEVIEW	167	MURRYHS	168	UINTAHS	169	WASATCHS
170	USOERMT	171	USOE171	172	LOGANHI	173	

#### Sample JCL and Effects

```
//EXAMPL1 JOB (0000),MSGCLASS=x,
```

```
// CLASS=R,TIME=(,10)
```

```
/*ROUTE XEQ DASDP1
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=*
```

(Submit from anywhere—will execute on DASDP1. May be executed on either CPU2 or CPU3.  
Print held at originating NODE.)

```
//EXAMPL2 JOB (0000),MSGCLASS=x,
```

```
// CLASS=G
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=*
```

(Submitted from anywhere—Data Base Class for GG has explicitly defined DASDP1 and CPU2  
thru exit.)

```
//EXAMPLE3 JOB (0000),MSGCLASS=A,
```

```
// CLASS=R,TIME=(,10)
```

```
/*ROUTE PRINT DDP
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=*
```

(Submitted from TSO2—will execute on either CPU2 or 3. All output printed at RMT55.)

```
//EXAMPL4 JOB (0000),MSGCLASS=A,
```

```
// CLASS=R,TIME=(,10)
```

```
/*ROUTE PRINT TXR11
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=*
```

(Submitted from TSO4—will execute on CPU4. All output printed at RMT11.)

```
//EXAMPL5 JOB (0000),MSGCLASS=X,
```

```
// CLASS=D
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=*
```

(Submitted from RMT04—Executed on CPU4 (Development class)—print held at DASDP1.)

```
//EXAMPL6 JOB (0000), MSGCLASS=X,
```

```
// CLASS=R,TIME=(,10)
```

```
/*ROUTE XEQ DASDV
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=A,DEST=DDP
```

(Submit from anywhere—JCL messages held. Executed on CPU4 (DASDV). SYSPRINT output routed and printed at RMT55.)

```
//EXAMPL7 JOB (0000),MSGCLASS=A,
```

```
// CLASS=R,TIME=(,10)
```

```
/*ROUTE XEQ DASDV
```

```
/*ROUTE PRINT IRON
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=(F,,L002),
```

```
//          DEST=DASDP1
```

(Submitted from TSO2—Executed on CPU4. JCL messages will be routed to RMT109.

SYSPRINT routed to laser printer at computer center.)

```
//EXAMPL8 JOB (0000),MSGCLASS=X,
```

```
// CLASS=P,TIME=(,10)
```

```
//STEP1 EXEC PGM=SAMPLE
```

```
//SYSPRINT DD SYSOUT=*
```

(Submitted from CPU4—Executed on CPU3. Output held at DASDV (sent back to originator).)